

Structuring the Financing

The Mechanics of a Bond Sale

California Debt and Investment Advisory Commission

Scott Nagelson

Banc of America Securities LLC

(415) 953-7314

October 27, 2004

Topics

- ◆ **Developing the Plan of Finance**
- ◆ **Sizing the Bond Issue**
- ◆ **Developing the Debt Service Structure**
- ◆ **Debt Service Structure**
- ◆ **Ratings and Credit Enhancement**
- ◆ **Variable Rate Bonds**
- ◆ **Interest Rate Swaps**

Developing the Plan of Finance

Nature of the Asset to be Financed

Source of Repayment

Financing Vehicle

Timing

Nature of the Asset

Questions

Useful Life of the Asset?



Considerations

Match amortization of debt to life of asset.

Revenue Generating Asset?



Revenue bonds vs. General Fund

**Acquisition/
Construction Period?**



- **Timing of issuance.**
- **Net funding vs. Gross funding of construction account.**

Asset Cost?



- **Timing of issuance.**
- **Other sources of funding.**

Plan of Finance -- Sources of Repayment

General Fund

- **Annual Appropriations**

Taxes

- **Property Tax (GO Bonds)**
- **Tax Increment**
- **Sales Tax**
- **Special Tax or Assessment**

Enterprise Fund

- **Water**
- **Wastewater**
- **Power**
- **Airport**

Plan of Finance – Typical Financing Vehicles

General Obligation Bonds

Security

- **Full Faith & Credit Pledge of Municipality**

Typical Features

- **2/3 Voter Approval required.**
- **Generally Ad Valorem Property Tax.**
- **Highest Rating/Lowest Borrowing Cost.**

Plan of Finance – Typical Financing Vehicles

Certificates of Participation/Lease Revenue Bonds

Security

- **Covenant to appropriate; usually from General Fund revenues.**
- **Abatement**

Typical Features

- **Not Subject to Voter Authorization**
- **No Debt Coverage Requirement**
- **Lease or installment purchase of an asset.**
- **Generally One Grade Rating Below G.O. Rating**

Plan of Finance -- Typical Financing Vehicles

Land Secured Financings

(benefit assessment, Special Tax/Mello-Roos)

Security

- Pledge of Property Owner Assessments and/or Special Taxes.

Typical Features

- Property Owner Election Required.
- Statutory Limits (minimum 3:1 value-to-lien ratio, etc.).
- New Districts Generally Unrated.

Plan of Finance -- Typical Financing Vehicles

Enterprise Revenue Bonds

(sewer, water, electric, solid waste, parking, etc.)

Security

- Specific Source of Revenue Pledged (typically user fees).

Typical Features

- Generally not Subject to Voter Authorization.
- Bonding Capacity Limited by Rate Covenant and Additional Bonds Test
- Generally Investment Grade Rating.

Plan of Finance -- Typical Financing Vehicles

Tax Allocation Bonds

(special category of Revenue Bonds)

Security

- Pledge of Tax Increment From Redevelopment Project Area Net of Required Pass-Throughs.

Typical Features

- Not Subject to Voter Authorization.
- Rating Dependent Upon Strength of Project Area and Tax Increment Stream.

Plan of Finance -- Typical Financing Vehicles

Short-Term Notes

(TRANS, RANs, BANs, GANs, etc.)

Security

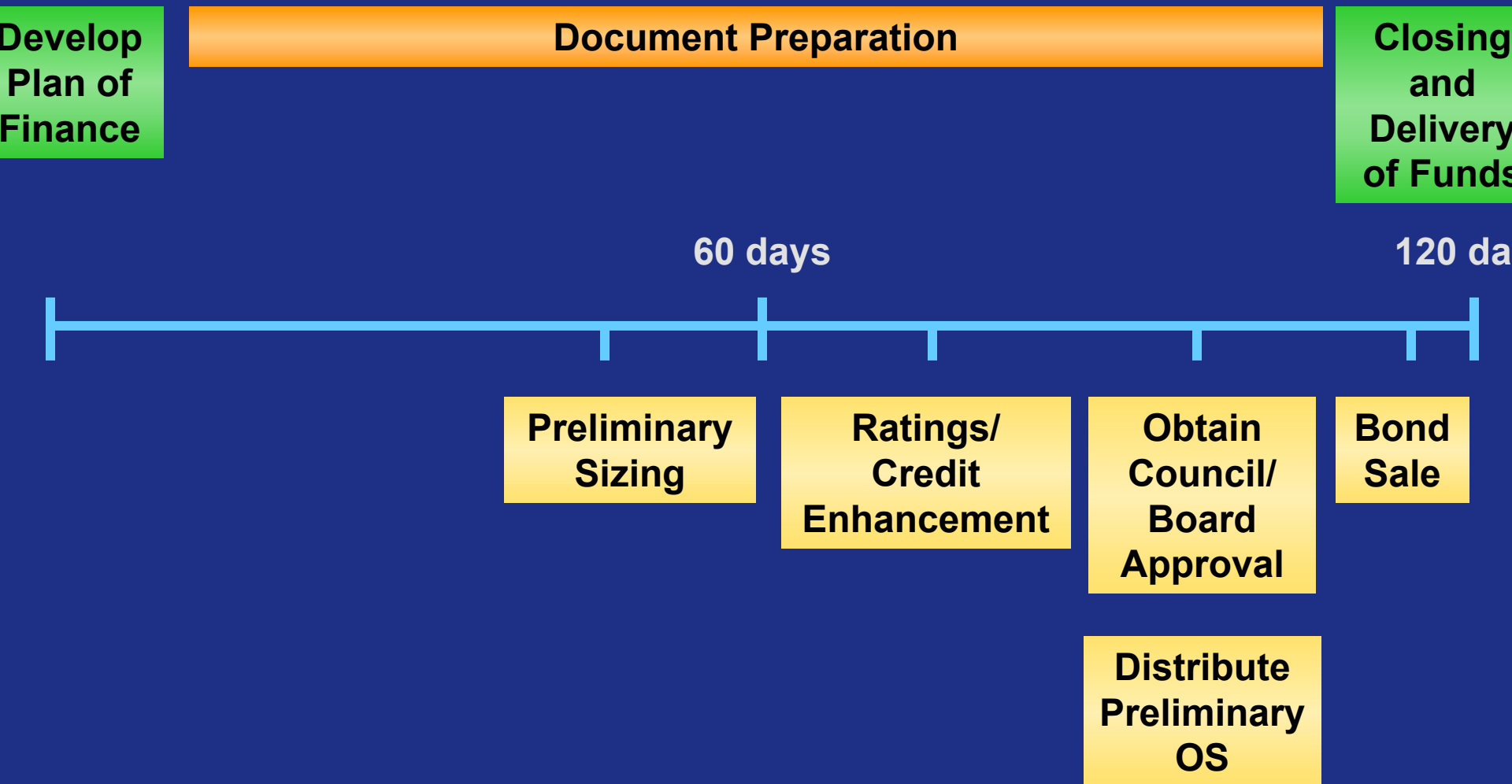
- Specific Anticipated Revenue Pledged to Retire Notes.

Typical Features

- Generally Investment Grade Short-Term Rating is Based Upon Strength of Pledged Revenue Source.

Timing Considerations

A straightforward financing can be executed in 60 to 120 days.



Sizing the Bond Issue

Project or Construction Fund

Capitalized Interest Fund

Debt Service Reserve Fund

Costs of Issuance

Underwriting Discount

The Project Fund

Funds acquisition of the asset or construction of the project.

- ◆ **Based on actual costs or reliable estimates.**
- ◆ **Net Funded or Gross Funded?**
 - **Gross Funded – Deposit exact amount required to pay for asset or project.**
 - **Net Funded – Amount deposited plus interest earnings sufficient to fund project.**

The Capitalized Interest Fund

Bond proceeds used to pay interest for a finite period of time.

- ◆ **Interest is capitalized for a number of reasons:**
 - **Until a project/asset can produce revenue.**
 - **Until the government has beneficial use (COPs, Lease Revenue Bonds)**
 - **Until revenue is projected to be sufficient to pay debt service.**

The Debt Service Reserve Fund

Provides additional security for investors.

- ◆ Found in most credits with the exception of GO Bonds.
- ◆ Sizing limited to the lesser of:
 - Maximum Annual Debt Service
 - 125% of Average Annual Debt Service
 - 10% of Par Amount
- ◆ Fund is invested with earnings usually going as an offset to debt service.
- ◆ Can often be satisfied by purchasing a Debt Service Reserve Fund Surety Policy.

Costs of Issuance

Bond proceeds may be used to pay certain eligible costs.

Professional Services

- Bond Counsel and/or Disclosure Counsel
- Financial Advisor and Trustee/Paying Agent
- Rating Agencies
- Appraisal, Feasibility Study, Engineer's Report
- Special Tax Consultant
- Title Insurance

Credit Enhancement

- Bond Insurance and/or Surety Bond Premium
- Letter of Credit fees

Underwriting Discount

Underwriter's compensation and expenses.

Components

- Average Takedown
- Management Fee
- Expenses

Funding Method

- At closing, Underwriter pays for bonds an amount less the underwriting discount.

\$100,000,000

Par

(650,000)

Less discount of 6.50/\$1,000

\$ 99,350,000

Purchase Price

Other Considerations

- Expressed as dollars per thousand dollars of bonds (e.g., \$6.50/\$1,000)

Sizing Example

Net Funded Construction Fund

Capitalized Interest Fund

Debt Service Reserve Fund

Costs of Issuance

Underwriting Discount

Sizing Assumptions -- Dry Creek Water District

Project Cost and Draw Schedule	4/1/2005	\$ 10,000,000	
	10/1/2005	\$ 10,000,000	
	4/1/2006	\$ 10,000,000	
	10/1/2006	<u>\$ 10,000,000</u>	
		\$ 40,000,000	Total Project Cost
Bonds Dated:	1/1/2005		
Final Maturity:	1/1/2037		

Sizing Assumptions -- Dry Creek Water District

Costs of Issuance

\$200,000

**Legal, FA, Trustee
Ratings, Printing, Misc.**

Bond Insurance

40 bps

**Bond Insurance Premium
(Total Debt Service x .40%)**

Underwriting Discount

\$6.50/bond

**Takedown, Management Fee,
Expenses**

Sizing Assumptions – Dry Creek Water District

Debt Service Reserve Fund

Lesser of:

Maximum Annual Debt Service

125% of Average Annual Debt Service

10% of Par Amount

Capitalized Interest

**Through
1/1/07**

2-year Construction Period

Sizing Assumptions – Dry Creek Water District

Reinvestment Assumptions	<u>Earnings Go To:</u>		
	Capitalized Interest Fund:	2.50%	Construction Fund
	Construction Fund:	2.50%	Construction Fund
	Debt Service Reserve Fund:	5.0% (Bond Yield)	Construction Fund

Sizing Example – Net Funded Project Fund

Sources of Funds:

Par Amount:	\$ 46,390,000
Total Sources of Funds:	\$ 46,390,000

Uses of Funds:

Project Fund	\$ 38,723,636
Cap Interest Fund:	\$ 4,008,591
Debt Service Reserve Fund:	\$ 2,795,850
Bond Insurance:	\$ 357,550
COI:	\$ 200,000
Underwriter's Discount:	\$ 301,535
Rounding:	\$ 2,838
Total Uses of Funds:	\$ 46,390,000

1/1/05 Initial Deposit: \$ 38,723,636

Project Fund Earnings \$ 968,704

Cap Interest Fund Earnings: \$ 112,609

Debt Service Reserve Fund Earnings \$ 195,051

Total Project Cost \$ 40,000,000

Sizing Example – Capitalized Interest Fund

Sources of Funds:

Par Amount:	\$ 46,390,000
Total Sources of Funds:	\$ 46,390,000

Uses of Funds:

Project Fund	\$ 38,723,636
Cap Interest Fund:	\$ 4,008,591
Debt Service Reserve Fund:	\$ 2,795,850
Bond Insurance:	\$ 357,550
COI:	\$ 200,000
Underwriter's Discount:	\$ 301,535
Rounding:	\$ 2,838
Total Uses of Funds:	\$ 46,390,000

1/1/05 Initial Deposit:	\$ 4,008,591
7/1/05 Interest Payment:	(\$ 1,005,697)
1/1/06 Interest Payment:	(\$ 1,005,697)
7/1/06 Interest Payment:	(\$ 998,599)
1/1/07 Interest Payment:	(\$ 998,599)
Fund Balance on 1/1/07:	\$ 0

Sizing Example – Debt Service Reserve Fund

Sources of Funds:

Par Amount:	\$ 46,390,000
Total Sources of Funds:	\$ 46,390,000

Uses of Funds:

Project Fund	\$ 38,723,636
Cap Interest Fund:	\$ 4,008,591
Debt Service Reserve Fund:	\$ 2,795,850
Bond Insurance:	\$ 357,550
COI:	\$ 200,000
Underwriter's Discount:	\$ 301,535
Rounding:	\$ 2,838
Total Uses of Funds:	\$ 46,390,000

Lesser of:

Maximum Annual Debt Service	\$ 2,795,850
125% of Average Annual Debt Service	\$ 3,491,698
10% of Par Amount	\$ 4,639,000

Sizing Example – Bond Insurance Premium

Sources of Funds:

Par Amount:	\$ 46,390,000
Total Sources of Funds:	\$ 46,390,000

Uses of Funds:

Project Fund	\$ 38,723,636
Cap Interest Fund:	\$ 4,008,591
Debt Service Reserve Fund:	\$ 2,795,850
Bond Insurance:	\$ 357,550
COI:	\$ 200,000
Underwriter's Discount:	\$ 301,535
Rounding:	\$ 2,838
Total Uses of Funds:	\$ 46,390,000

Total Principal & Interest:	\$ 89,387,448
	x.40%

Bond Insurance Premium	\$ 357,550
------------------------	------------

Sizing Example – Costs of Issuance

Sources of Funds:

Par Amount:	\$ 46,390,000
Total Sources of Funds:	\$ 46,390,000

Uses of Funds:

Project Fund	\$ 38,723,636
Cap Interest Fund:	\$ 4,008,591
Debt Service Reserve Fund:	\$ 2,795,850
Bond Insurance:	\$ 357,550
COI:	\$ 200,000
Underwriter's Discount:	\$ 301,535
Rounding:	\$ 2,838
Total Uses of Funds:	\$ 46,390,000

Costs of Issuance:

Bond Counsel:	\$ 100,000
Financial Advisor:	\$ 50,000
Trustee:	\$ 5,000
Rating Agencies:	\$ 30,000
Printing:	\$ 7,500
Miscellaneous:	\$ 7,500
Total COI:	\$ 200,000

Sizing Example – Underwriting Discount

Sources of Funds:

Par Amount:	\$ 46,390,000
Total Sources of Funds:	\$ 46,390,000

Uses of Funds:

Project Fund	\$ 38,723,636
Cap Interest Fund:	\$ 4,008,591
Debt Service Reserve Fund:	\$ 2,795,850
Bond Insurance:	\$ 357,550
COI:	\$ 200,000
Underwriter's Discount:	\$ 301,535
Rounding:	\$ 2,838
Total Uses of Funds:	\$ 46,390,000

Underwriting Discount:

Takedown (\$3.50/bond):	\$ 162,365
Management Fee (\$1.00/bond):	\$ 46,390
Expenses (\$2.00/bond):	\$ 92,780
Underwriter's Discount (\$6.50/bond):	\$ 301,535



Debt Service Structure

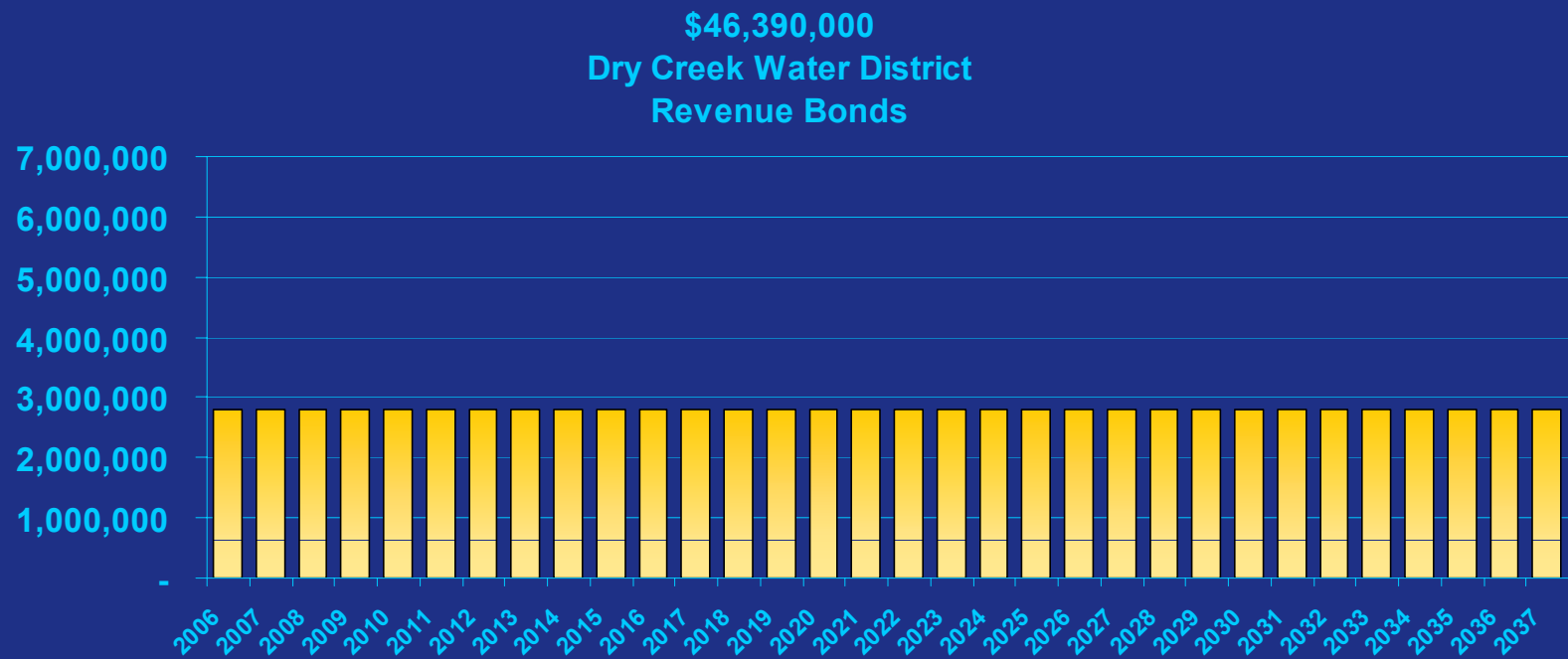
Sample Structures

Current Interest vs. Deferred Interest

Optional Redemption

Refunding Considerations

Level Debt Service



DSRF Implications

Lesser of:

Maximum Annual Debt Service \$ **2,795,850**

125% of Average Annual Debt Service \$ **3,491,698**

10% of Par Amount \$ **4,630,000**

Bond Insurance Implications

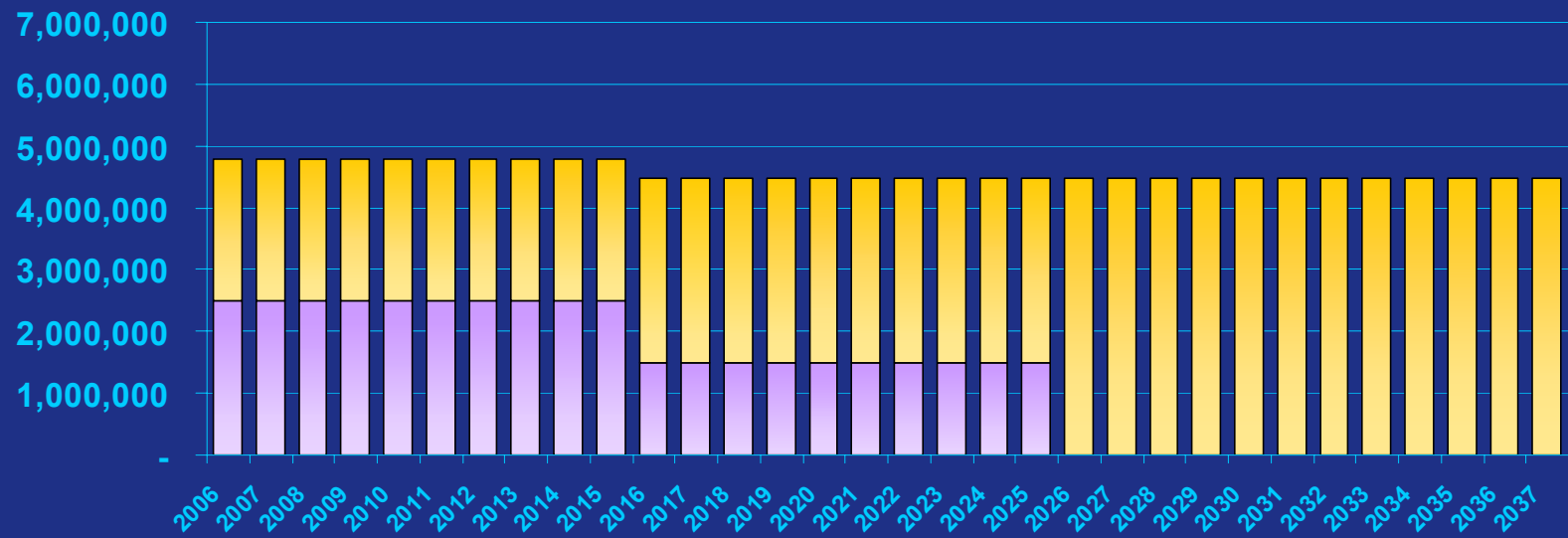
Total Principal & Interest \$ **89,387,448**

x.40%

Insurance Premium \$ **357,550**

Increasing Debt Service

\$48,255,000
Dry Creek Water District
Revenue Bonds



DSRF Implications

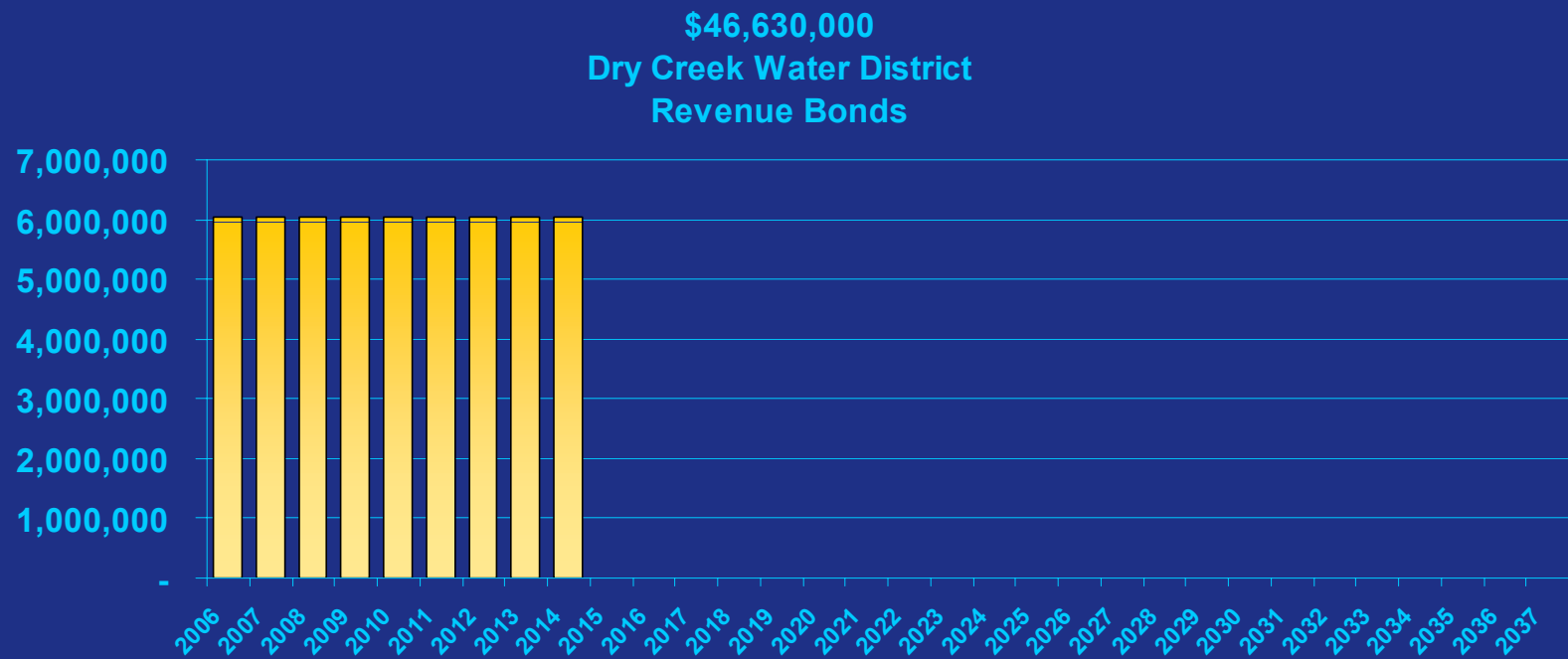
Lesser of:

Maximum Annual Debt Service	\$	4,469,658
125% of Average Annual Debt Service	\$	4,144,838
10% of Par Amount	\$	4,825,500

Bond Insurance Implications

Total Principal & Interest	\$	106,107,854
		x.40%
Insurance Premium	\$	424,431

Short Maturity



DSRF Implications

Lesser of:

Maximum Annual Debt Service	\$ 6,041,629
125% of Average Annual Debt Service	\$ 7,549,914
10% of Par Amount	\$ 4,663,000

Bond Insurance Implications

Total Principal & Interest	\$ 54,359,382
	x.40%
Insurance Premium	\$ 217,438

Structuring the Bonds

[illegible]

\$46,390,000

Dry Creek Water District Water Revenue Bonds

Dated: January 1, 2005

Due: January 1, 2037

[illegible]

Maturity (January 1)	Maturity Schedule		Yield
	Principal Amount	Interest Rate	
2006	780,000	1.820%	1.820%
2007	795,000	2.070%	2.070%
2008	815,000	2.370%	2.370%
2009	830,000	2.670%	2.670%
2010	855,000	3.020%	3.020%
2011	880,000	3.220%	3.220%
2012	910,000	3.370%	3.370%
2013	940,000	3.520%	3.520%
2014	970,000	3.630%	3.630%
2015	1,005,000	3.740%	3.740%
2016	1,045,000	3.840%	3.840%
2017	1,085,000	3.940%	3.940%
2018	1,130,000	4.030%	4.030%
2019	1,175,000	4.110%	4.110%
2020	1,220,000	4.180%	4.180%
2021	1,275,000	4.270%	4.270%
2022	1,325,000	4.350%	4.350%

\$ 7,610,000 4.72% Term Bonds maturing January 1, 2027

\$ 9,600,000 4.81% Term Bonds maturing January 1, 2032

\$ 12,145,000 4.84% Term Bonds maturing January 1, 2037

Serial Bonds

- Mature “serially” by year.
- Take advantage of positively sloped yield curve.

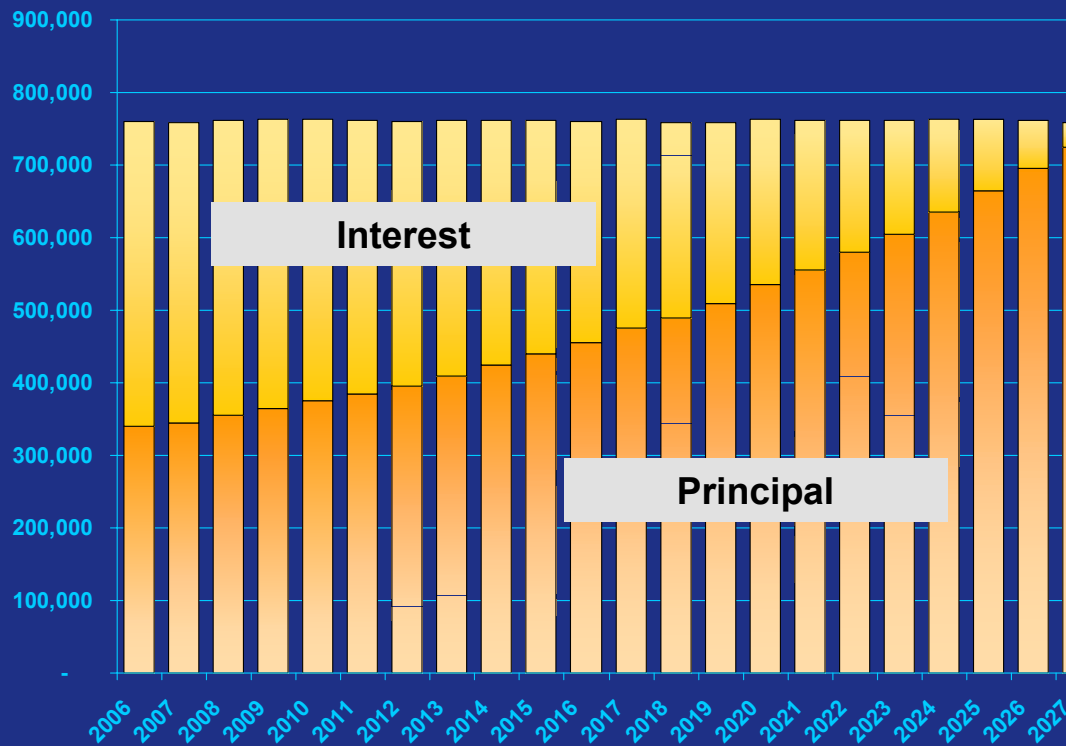
Term Bonds

- **Single coupon covering multiple years.**
- **Retired with annual Sinking Fund Payments.**

Current or Deferred Interest Bonds

Current Interest Bonds

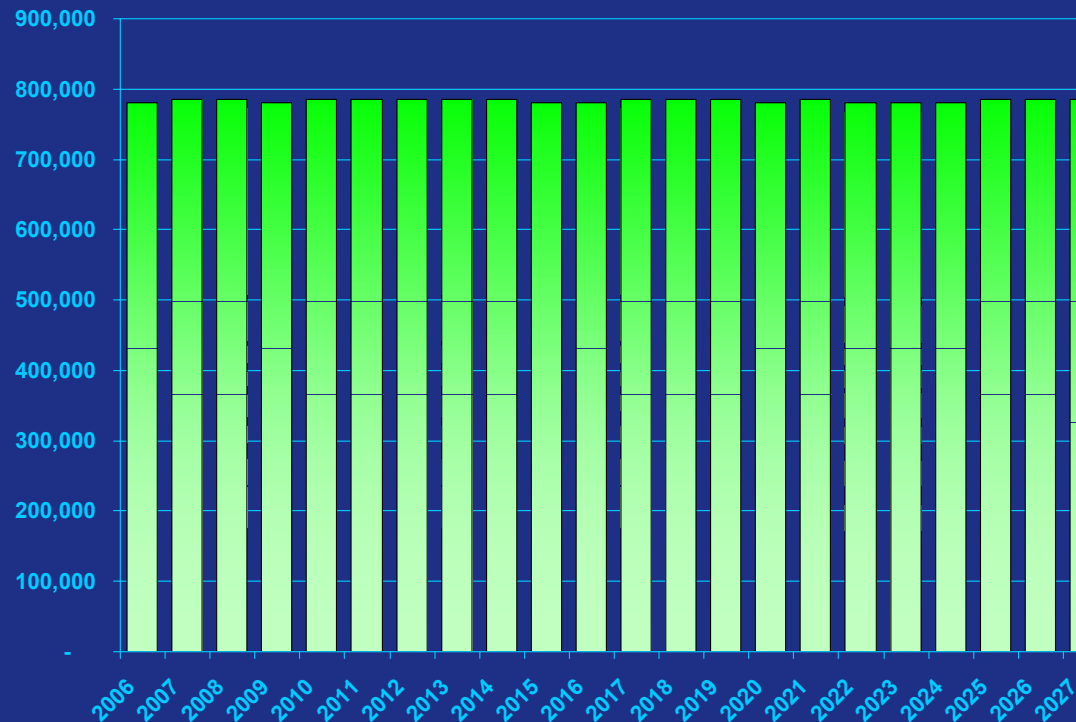
- Pay interest at stated coupon.
- Interest typically paid every 6 months.
- May be sold at par, at a premium or at a discount.
- Investor's yield determined by price paid for the Bond.



Current or Deferred Interest Bonds

Capital Appreciation Bonds

- “Zero” coupon or deferred interest bonds.
- Interest accretes to maturity.
- Sold at a deep discount.
- Investor’s yield determined by price paid for the Bond.



Other Considerations

◆ Optional Redemption

- Standard optional redemption period is 10 years.
- Callable bonds generally have a higher yield than non-callable bonds.

◆ Par Bonds, Original Issue Discount Bonds, and Original Issue Premium Bonds

	<u>Coupon</u>	<u>Yield</u>	<u>Price</u>
■ Par Bond	5.00%	5.00%	100%
■ Discount Bond	5.00%	5.10%	98% (est)
■ Premium Bond	5.00%	4.90%	100.9% (est)

Refunding Considerations

Advance Refunding

- Old Bonds are not currently subject to optional redemption.
- New Bond proceeds are used to fund an escrow that defeases old bonds to call date.
- Escrow invested in Treasury (SLGs) with maximum permitted yield equal to bond arbitrage yield.
- Can only advance refund one time.

Current Refunding

- Old bonds are currently subject to optional redemption.
- New bond proceeds used to redeem old bonds.

Ratings and Credit Enhancement

The Rating Agencies

Rating Agency Packages

Obtaining a Rating

Credit Enhancement – Bond Insurance

Credit Enhancement – Letters of Credit

The Rating Agencies



Moody's



S&P

FitchRatings Fitch

Long-Term

Aaa
Aa1, Aa2, Aa3
A1, A2, A3
Baa1, Baa2, Baa3
Ba1, Ba2, Ba3

AAA
AA+, AA, AA-
A+, A, A-
BBB+, BBB, BBB-
BB+, BB, BB-

AAA
AA+, AA, AA-
A+, A, A-
BBB+, BBB, BBB-
BB+, BB, BB-

Short-Term

MIG-1, MIG-2, MIG-3
(Notes)

VMIG-1, VMIG-2,
VMIG-3 (Commercial
Paper and VRDBs)

SP-1+, SP-1, SP-2,
SP-3 (Notes)

A-1, A-2, A-3
(Commercial Paper
and VRDBs)

F-1+, F-1, F-2, F-3
(Notes)

LOC (Commercial
Paper and
VRDBs)

Obtaining a Rating

◆ A typical rating agency package might include:

- 3 years of audited financial statements
- Current and proposed budget
- Bond Documents, including:
 - Trust Indentures
 - Lease Agreements
 - Installment Sale Agreements
 - Redevelopment Loan Agreements
- Preliminary Official Statement
- Special Reports
- Sizing and Debt Service Schedules
- Timing and Responsibility Schedule
- Distribution List

Obtaining a Rating

- ◆ It is often useful to meet with the rating analysts to:
 - Describe the project
 - Get feedback on the structure
 - Describe salient aspects of security
 - Review demographics and economics of service area
 - On-site or at rating agency offices

Credit Enhancement – Bond Insurance

Pay a premium to have an outside party guarantee timely payment of principal and interest for the life of the bonds.

- ◆ **Aaa/AAA/AAA Bond Insurance**
(Ambac, FGIC, FSA, MBIA, XL Capital)
 - Generally look to insure BBB+ credits and above.
 - Lower premiums for stronger credits.
- ◆ **Method of Payment**
 - Upfront
 - Periodically (not common)
- ◆ **Pricing expressed in “basis points” (1 bp = 1/100 of 1%) and multiplied against total principal and interest.**
- ◆ **Can enhance both fixed and variable rate bonds.**

Credit Enhancement – Letters of Credit

- ◆ **Letter of Credit – guarantee payment of outstanding principal and accrued interest at any point in time during the term of the LOC. Long-term and short-term ratings based on bank ratings.**
- ◆ **Liquidity Facility or Line of Credit– limited obligation to pay principal and interest during term of facility. Not a full guarantee. Long-term rating based on issuer or bond insurance. Short-term rating based on bank.**
- ◆ **Term – 1 year to 7 years generally with options to renew.**
- ◆ **Fee – Usually paid annually or quarterly based on principal plus specified number of days interest.**

Variable Rate Bonds

Historical Interest Rates

Structuring Options

Pros and Cons of Alternative Structures

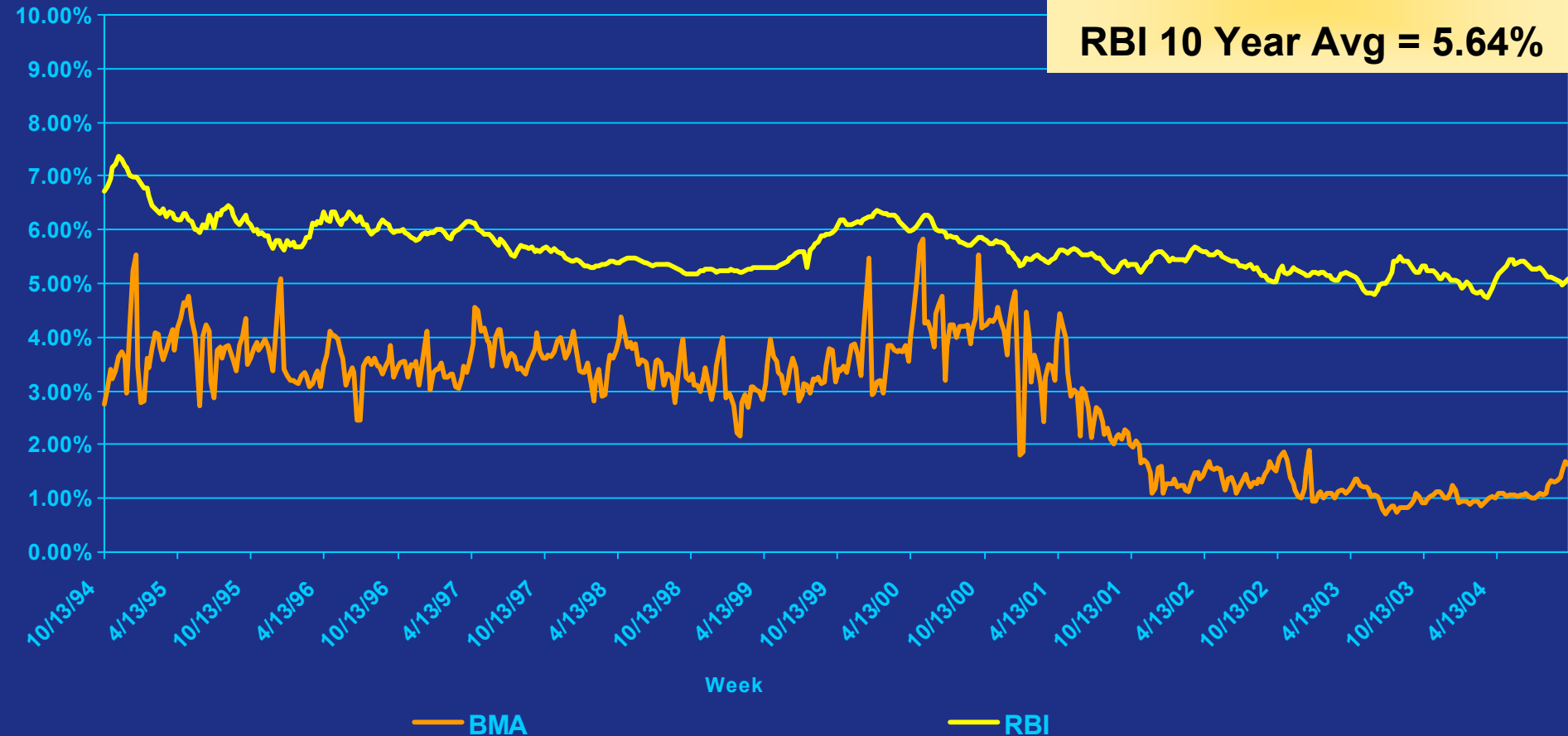
The Dutch Auction Process

ARS vs. VRDBs

Variable Rate vs. Fixed Rate

Bond Market Association (BMA) Index vs. Bond Buyer Revenue Bond Index (RBI)
A Ten Year History

BMA 10 Year Avg = 2.85%
RBI 10 Year Avg = 5.64%



Introduction to Variable Rate Structures

- ◆ **There are three primary variable rate structures used in the municipal market:**
 - **Commercial Paper**
 - **Variable Rate Demand Bonds**
 - **Auction Rate Securities**

Variable Rate Structuring Options

Commercial Paper

- Can be drawn down and paid back as needed.
- Outstanding CP is remarketed for a maximum of 270 days.
- Bank credit facility required for liquidity.
- Money Market Funds are the primary investor.

Variable Rate Structuring Options

Variable Rate Demand Bonds

- Long-term bond with rate that resets periodically (daily, weekly, monthly, etc.).
- Investor can “put” bonds on short notice (allows bond to trade at par).
- Bank credit facility required to support put.

Variable Rate Structuring Options

Auction Rate Securities

- Long-term bond with rate that resets periodically (weekly, monthly, etc.).
- No “put” feature and thus, no bank facility.
- Rate reset via Dutch Auction process.

Pros vs. Cons of Alternative Structures

PROS

CONS

Fixed Rate

- Debt Service certainty

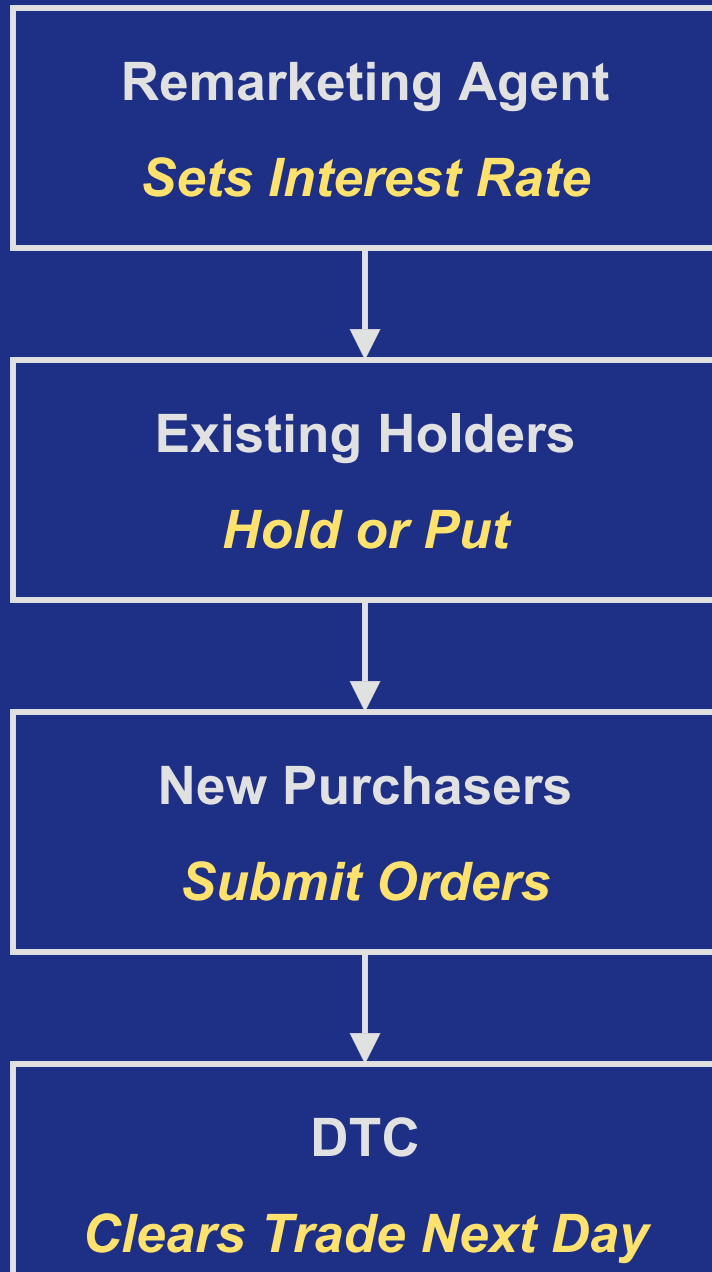
- Less flexibility to refinance if rates go down.

Variable Rate

- Lower rates
- More flexibility to restructure/refinance.

- Interest rates may rise.
- Takes more time to manage.

VRDB Process



Remarketing Agent

- Establishes interest rate at periodic intervals (i.e., daily, weekly, monthly)

Existing Holders

- May hold bonds or “put” bonds back to Remarketing Agent.

New Purchasers

- Submit orders for any bonds that have been “put” back to the Remarketing Agent.

Dutch Auction Process

Purchaser/Seller
Submits Orders



Broker/Dealer
Relays Orders



Auction Agent
Auction Results



DTC
Clears Trade Next Day

Broker-Dealer

- Passes orders to Auction Agent

Auction Agent

- Assembles bids in ascending order.
- Determines highest bid to clear auction, which is interest rate applied to issue until next auction.

Dutch Auction Orders

Bid Order

- Hold ARS provided that the reset interest rate is not less than that specified by the bid of the current ARS holder.
- If the rate is below, the ARS are sold.

Hold at Market

- Hold ARS regardless of reset interest rate.

Potential Bid

- Minimum rate acceptable to buy additional ARS.

Sell Order

- Sell ARS without regard to the reset interest rate.

Potential investors can submit bid orders to buy ARS at a specified rate.

ARS vs. VRDBs At-A-Glance

	ARS	VRDBs
Short End of Yield Curve	✓	✓
Flexible Reset Intervals	✓	✓
Ability to Enter into Swaps	✓	✓
Callable Anytime	✓	✓
Investor Tender Option		✓
Requires LOC or Liquidity Facility		✓
Requires Bond Insurance	✓	
Interest Rate determined by Dutch Auction	✓	

Interest Rate Swaps

Intro to Interest Rate Swaps

Floating-to-Fixed Cashflows

Risks in a Tax-Exempt Financing

Hedging Risk

Selecting the Appropriate Index

Index Alternatives At-a-Glance

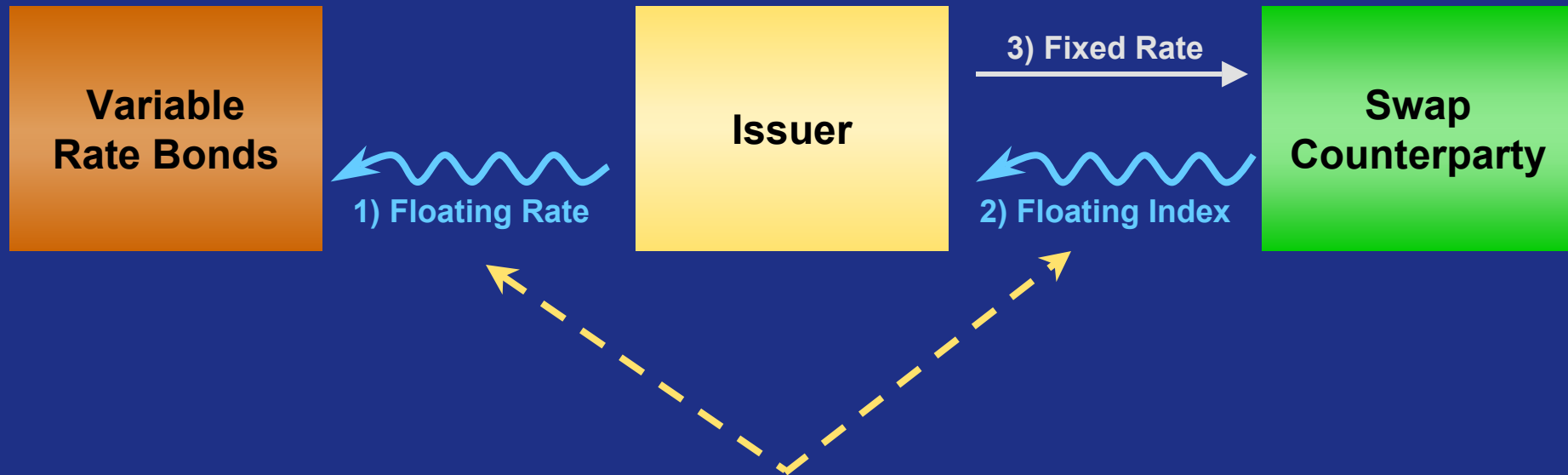
Introduction to Interest Rate Swaps

- ◆ **A swap is an agreement between two parties to exchange interest payments based upon a principal amount called the notional amount.**
- ◆ **The notional amount of the swap typically matches the amortization of the underlying bonds.**
- ◆ **Typically, one party exchanges fixed payments for a floating payment linked to the actual bond rate, BMA, or LIBOR**
- ◆ **Actual principal is never exchanged on an interest rate swap.**

Floating-to-Fixed Cashflow Diagram

Organizing the Cashflows

- 1) Issuer pays a floating interest rate to the Bond Trustee.
- 2) Issuer receives a floating interest rate payment from the swap.
- 3) Issuer makes a fixed rate interest payment on the swap.



Basis Risk is the degree to which the floating rate index and floating rate on the bonds differ.

Risks in a Tax-Exempt Variable Rate Financing

Interest Rate Risk

- The risk that the general level of interest rates rise

Tax Rate Risk

- The risk that interest rates rise due to a decline in income tax rates, causing the tax exemption to be worth less to investors.

Credit Provider Risk

- Market acceptance of the LOC bank declines causing investors to demand a higher rate.

Remarketing Agent Risk

- The remarketing agent fails to remarket the VRDB competitively.

Hedging Risk

By selecting the appropriate variable rate index all or some of the risks that are present in a variable rate financing can be controlled.

**Cost of
Funds**

- The Swap Counterparty pays the Issuer the actual rate on the underlying variable rate bonds.

**BMA
Municipal
Swap Index**

- The Swap Counterparty pays the Issuer the BMA Index, a seven-day high-grade market index comprised of tax-exempt VRDBs.

**Percent of 1-
Month LIBOR**

- The Swap Counterparty pays the Issuer a specified percentage of the London Interbank Offered Rate (“LIBOR”), a short-term taxable interbank lending rate.

Selecting the Appropriate Index

The Cost of Funds Index

- The Swap Counterparty pays the Issuer the actual rate on their variable rate bonds
- The Bonds must be in a “weekly reset” mode
- A Cost of Funds Index swap will result in the highest fixed rate to the issuer due to the complete shifting of risk

Selecting the Appropriate Index

The BMA Index

- The BMA Index is a widely quoted, seven-day high-grade market index comprised of tax-exempt VRDBs
- The BMA Index will hedge the two primary VRDB risks:
 - Interest Rate Risk - BMA changes with general market conditions
 - Tax Rate Risk - BMA will change as investors adjust to changing tax rates

Selecting the Appropriate Index

The Percent of 1-Month LIBOR Index

- LIBOR is a short-term taxable rate
- LIBOR moves efficiently with the general interest rate market, unaffected by tax rates, credit enhancement or other influences
- By using LIBOR, the Issuer is hedging interest rate risk only
- BMA has averaged 67.41% of LIBOR since 1989

Index Alternatives – At-a-Glance

Each index hedges different risks.

Cost of Funds

~~Interest Rate Risk~~

~~Tax/Basis Risk~~

~~Supply-Demand Risk~~

~~Remarketing/Credit
Enhancement Risk~~

BMA Swap

~~Interest Rate Risk~~

~~Tax/Basis Risk~~

~~Supply-Demand Risk~~

Remarketing/Credit
Enhancement Risk

% of LIBOR

~~Interest Rate Risk~~

~~Tax/Basis Risk~~

~~Supply-Demand Risk~~

Remarketing/Credit
Enhancement Risk